PIM Route Flap Damping

draft-hu-pim-route-flap-damping

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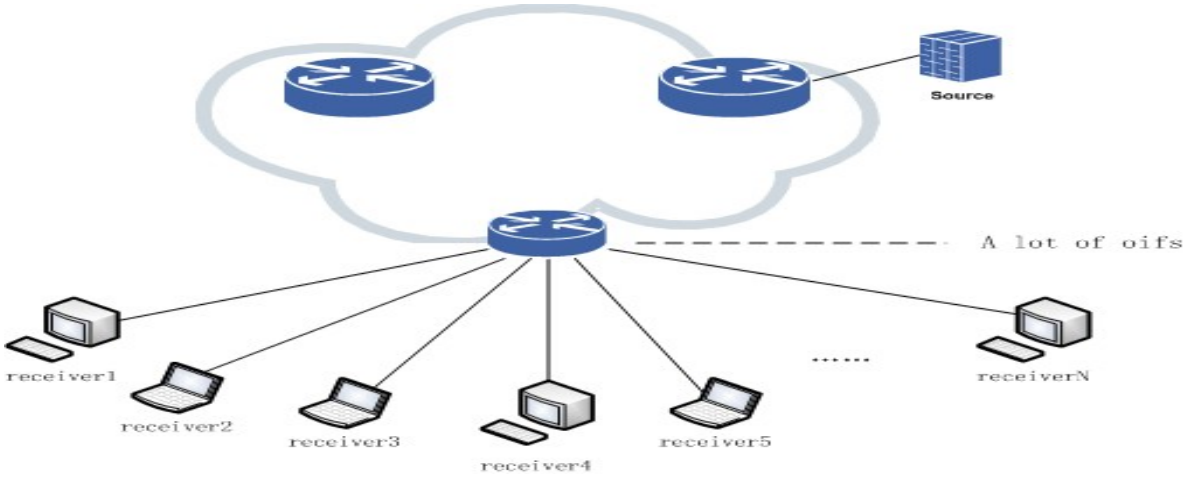
Motivation



- MRIB Flap is more complex than unicast route
  - The MRIB includes one ingress interface and several outgoing interfaces.
  - The state of oifs may change very frequently.
  - Only the first oif and the last oif will affect the state of multicast routes. But if the other oifs state changed frequently, the oifs should also be suppressed.

Motivation

- RFC 2439 damping algorithm is more complex for the multicast route flap
  - based on the statistics, needs amount of calculatio n
  - is not very intuitive, is a nonlinear exponential dam p index
  - The recovery time is very long
- We propose a new damp algorithm(SMRDA) to simplify the multicast damp algorithm for the co mplementary of RFC 2439

Parameters Definition

- Flap-count: the times of oil flapping.
- Damping-check-period: the period for state cha nging of oifs;
- Damping-threshold: the threshold for a state of oif being damped;
- Recover-threshold: the threshold for a state of oi f to recover;
- Max-suppress-time: The max period of the oifs a re suppressed;

The Principle of SMRDA

- When oif's state change, the flap-count f or that outgoing interface(oif) plus one;
  - If the flap-count > damping-threshold, oif's st ate changing will be suppressed;
  - if flap-count < damping-reuse- threshold, the oif will be recovery;
  - If the time of the suppressed outgoing interfa ce > Maximum-hold-timer, the oif's state is no t suppressed any more.

Next Step

- Comments welcome
- Workgroup adoption?

Thanks!